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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / <i>C. CORNELIUS</i> PATENT IN REEXAMINATION	ATTORNEY DOCKET NO. <i>28,332-17</i>
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~~09/849,884~~  
10/691,683

9/29/2003

ENCLOSURE Mailed  
8/30/05

Charles E. J. J. J.

EXAMINER <i>NA Nakarani</i>
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ART UNIT/983	PAPER
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20050819

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The reply filed on May 27, 2005 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): The response filed May 27, 2005 in response to the Office letter mailed May 18, 2005, does not include copy of a response to Office letter of November 20, 2001 in parent case Serial No.: 09/849,884 filed on January 24, 2002 or remarks or arguments concerning the rejection of claims 1-3 under 35 USC 103(a) as being unpatentable over Miro (U. S. Patent 6,166,852) in view of Pavelka et al (U. S. Patent 5,387,458). Applicant is requested to NOTE that U. S. Patent Application 09/849,884 was filed on May 04, 2001. Therefore the date November 20, 2000 is incorrect in the response to the Office letter mailed on August 16, 2004, filed on October 7, 2004 in this case. See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday through Friday from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*D. S. Nakarani*

D. S. Nakarani  
Primary Examiner  
Art Unit: 1773



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28,332-a

Art Unit 1773                      Examiner D.S. Nakarani  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Paper No.

Applicant:    Lester Cornelius  
Serial No.:    09/849,884  
Filed:          April 4, 2000  
For:            ULTRA VIOLET RADIATION BLOCKING  
                 COATING SYSTEM

ASSISTANT COMMISSIONER FOR PATENTS  
BOX NON-FEE AMENDMENTS  
WASHINGTON, D.C. 20231

SIR:

Responsive to office letter dated November 20, 2000, kindly amend as follows:

In the specification, page 4, line 13, change "longe wave", to read -- long wave --. Line 17, capitalize "Uvitex".

Page 5, line 21, capitalize "Quencher".

Page 7, line 16, capitalize "Uvitex".

Page 11, line 11, change "670-80A", to read -- 670-A-80 --.

Page 4, line 4, correct the spelling of "absorber".

Withdraw claims 1 through 8, inclusive, without prejudice, substituting the following claims:

—9. An ultraviolet radiation absorbing coating system comprising: a first synthetic resinous layer having an ultraviolet absorber with an ultraviolet absorption cut-off of about 385 nanometers, and a fluorescent material which reflects ultraviolet radiation of wave length above 385 nanometers; and a second layer overlying said first layer having an ultraviolet absorber of approximately one-fifth the concentration of the ultraviolet absorber in said first layer, which blocks at least some of the ultraviolet reflection radiating from said fluorescent material.

10. An ultraviolet radiation absorbing coating <sup>system</sup> in accordance with claim 9, said inner layer being of a thickness ranging between 9 to 15 microns, said outer layer ranging in thickness between 3 to 5 microns.

11. An ultraviolet absorbing coating <sup>system</sup> in accordance with claim 10, including a substrate, said outer coating being applied to one surface of said substrate, said second coating being applied to a second opposite surface of said substrate.

12. An ultraviolet absorbing coating <sup>system</sup> in accordance with claim 11, in laminative combination with a printed surface of a paper sheet.

13. An ultraviolet absorbing coating <sup>system</sup> in accordance with claim 9, wherein the outer coating includes a minor amount of tetramethylaminohydromine for enhanced quenching of the optical brightener in the inner coating.

#### REMARKS

Examiner's comments with respect to redaction of the specification are noted, and the specification has been reviewed for accuracy. It is believed that the above amendments conform to Examiner's comments.

With respect to the merits of the application, applicant has withdrawn original claims 1 through 8, to be replaced by newly-inserted claims 9 through 13, inclusive, which are believed to more accurately define applicant's contribution to the art.

This contribution lies in the provision of a protective coating which requires only two layers, an inner layer which includes both an ultraviolet absorber sensitive to 375 nm, and an optical brightener which covers the remaining range thereabove. Unlike the prior art, applicant has combined these ingredients in a single coating ~~which~~ which does not appear to be disclosed or suggested in the art cited by Examiner. This coating, standing alone, does produce unwanted fluorescence, and applicant compensates for this by providing a second layer which includes only an ultraviolet absorber in a quantity approximating one-fifth of that of the inner layer. The result is complete ultraviolet blocking without detectable yellow color, and without observance of a fluorescent effect. This coating may be spray coated upon any desired object, irrespective of its configuration, or may be laminated to a thin substrate, which, in turn, is possible of laminated combination with a planar exposed surface, such as a printed sheet.

The claims are now presented without the use of tradenames or trademarks, but rather, in terms of their function.

Examiner has rejected original claims 1 to 5 under Section 103(a), as being patentable over Miro, in view of Basil, et al., and Pavelka, explaining that Miro discloses a window treatment film comprising a non-weatherable polyester film 17 bonded on one side with a weatherable polyester film containing an ultraviolet absorber and another adhesive layer containing an optical brightener. Examiner states that Miro does not

✓ disclose in a combination of ultraviolet absorber and optical brightener in the adhesive layer, and a polysiloxane layer containing an ultraviolet absorber.

✓ Examiner has stated that Pavelka, et al., disclose an article comprising a fluorescent layer and an ultraviolet screening layer over the fluorescent layer and thus teach that the incorporating ultraviolet absorber with a fluorescent material provides some improvement in fluorescent durability. Examiner has stated that Basil, et al., teach plastic substrate coated with an ultraviolet protective layer comprising a siloxane polymer containing an absorber in the form of cerium oxide. He has concluded that it would have been obvious at the time of the present invention to a person of ordinary skill to utilize the disclosure of Basil, et al., and Pavelka, in the Miro disclosure to add ultraviolet absorber in the adhesive coating containing fluorescent material to improve durability of the fluorescent material and use Basil's polysiloxane polymer with an ultraviolet absorber to provide protection and durability.

Applicant's argument commences with an acknowledgement that ultraviolet blocking materials and optical brighteners are both well-known in the art and may consist of a variety of materials. Indeed, the problem of fluorescence and optical brighteners is also recognized where high concentrations are employed. Miro is concerned with the creation of a synthetic <sup>resinous</sup> screen which may be applied to the inner surface of a building window to avoid effective screening. He places an additional layer on the opposite side of the optical brightener layer for protection from ultraviolet light which sources from inside the building, in order to prevent deterioration of the optical brightener. In effect, he creates a sandwich with two outer layers including ultraviolet absorbers and a central layer with

the optical brightener. This construction is suitable for his intended purpose, but hardly lends itself to a coating process, which as clearly seen in Figure 1 involves some nine separate layers.

Applicant's principal contribution lies in the appreciation that the optical brightener and one layer of ultraviolet absorber may be combined. He accommodates for fluorescence by providing a second relatively thin layer which contains only a relatively modest amount of ultraviolet absorber which, in effect, serves to remove the fluorescent effect of the optical brightener, so that the net result is complete blockage of ultraviolet radiation in a simple package consisting of only two layers, the outer one of which can be considerably thinner because of its relatively lower ultraviolet blocking material content. It is thus suitable for coating on such articles as lightbulbs, paper prints, and various other articles which may be of planar or other configuration. Where the coating is applied to a planar surface, it is possible to pre-form the entire coating upon a substrate, with one coating on one surface of the substrate, and an opposite surface for the other coating, following which the substrate may be cut to desired size for application, for example, to a photograph, or an ink-jet print. In essence, applicant obtains all of the result of Miro, with considerably simplified construction, so that it may be used on articles other than a window film. Applicant also provides for supplemental quenching of the optical brightener, where needed.

It is submitted that the supplemental references to Basil, et al., and Pavelka do not provide useful teachings which would negative applicant's invention in combination with Miro. Pavelka relates to a fluorescent sign which reflects light during both the daytime and the nighttime. He is interested in preventing degradation of the optical brightener, so that they fluorescence will be preserved.

Basil, et al., discloses an ultraviolet blocker for polycarbonates in which his protection extends from 240 to 280 nm. He utilizes cerium oxide as an ultraviolet coating, which substance is one of many, but has no concern with the use of an optical brightener.

✓ The newly inserted claims are submitted as <sup>defining</sup> applicant's invention. Claim 9 recites the use of an inner coating with an ultraviolet absorber operative up to about 385 nm, and a fluorescent material which reflects that part of the ultraviolet spectrum thereabove. It also recites the second layer which has a considerably smaller amount of ultraviolet blocking material which serves to reduce the fluorescence of the optical brightener. It is submitted that none of the references cited by Examiner, singly, or in combination, suggests this broad idea.

The remaining claims set forth the essence of the invention in more specific terms, including the relative greater thickness of the inner coating, the relative thinness of the outer coating, the application of the two coatings on opposite sides of the substrate, and the lamination of that substrate to a planar surface.

In view of the above amendment and argument, further and favorable consideration is earnestly solicited.

Respectfully,



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20,332-12

8/30/05

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Re Serial No. 10/071,673 EX NA KAWAZI PAT UNIT  
Filed 9/29/03 1973

Enclosed is Amendment in Serial No. 09/849,884. The  
commission is requested

Charles E. Temko